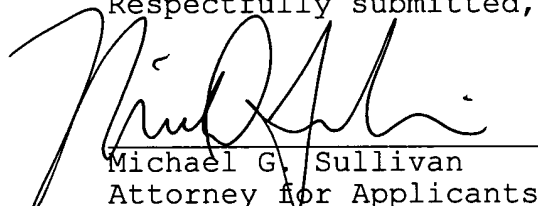


REMARKS

Claims 23, 30, 34, 38, 40, 46 and 49 are further amended above. These additional amendments are presented to conform the language of the claims to accepted U.S. patent practice without limiting the scope of the claims as first written and not for reasons of patentability under 35 U.S.C. 101, 102, 103 or 112.

It is believed that claims 23-54 recite a patentable improvement in the art. Favorable action is solicited. In the event any fees are required with this paper, please charge our Deposit Account No. 02-2334.

Respectfully submitted,



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81KUSTERS-SUPPLPREAMENDMENT

23. [A] An isolated nucleic acid molecule comprising a nucleotide sequence encoding two subunit polypeptides of a urease complex such as expressed by *Helicobacter felis*, said nucleotide sequence having at least 85% homology with SEQ ID NO: 1, or a part [thereof] of said nucleotide sequence encoding at least an immunogenic fragment of one of said subunits, said part having a length of at least 40 nucleotides.

30. A DNA fragment comprising a nucleotide sequence according to claim 23.

34. [A] An isolated *Helicobacter felis* urease X subunit polypeptide, said polypeptide comprising an amino acid sequence that is at least 85% homologous to SEQ ID NO: 2, or an immunogenic fragment of said polypeptide having a length of at least 40 amino acids, wherein said immunogenic fragment induces an immune response against ureaseXY.

38. The polypeptide of claim [31] 37, wherein said amino acid sequence is at least 94% homologous to SEQ ID NO: 2, or an immunogenic fragment of said polypeptide which induces an immune response against ureaseXY.

40. [A] An isolated *Helicobacter felis* urease Y subunit polypeptide, said polypeptide comprising an amino acid sequence that is at least 85% homologous to SEQ ID NO: 3, or an immunogenic fragment of said polypeptide having a length of at least 40 amino acids, wherein said immunogenic fragment induces an immune response against ureaseXY.

46. A vaccine for combating *Helicobacter felis* infections, comprising an immunogenically effective amount of a nucleic acid molecule of claim 23, a DNA fragment of claim [26] 30, a recombinant DNA molecule of claim [27] 31, a live recombinant carrier of claim [28] 32, a host cell of claim [29] 33 or a polypeptide according to claims 34 or 40, and a pharmaceutically acceptable carrier.

49. The vaccine of claim 48, wherein said virus or microorganism pathogenic to mammals is selected from the group consisting of Feline Infectious Peritonitis virus, Feline Immune deficiency virus, Canine and Feline Parvovirus, Distemper virus, Adenovirus, Calicivirus, *Bordetella bronchiseptica*, *Borrelia burgdorferi*, *Leptospira interrogans*, *Chlamydia* and *Bartonella henseli*.